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AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough; and 2. added matter is shown by underlining.

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Claims:

1-10. (Cancelled).

11. (Withdrawn) The method of claim 1, wherein the neurotransmitter is catecholamine.

12-15. (Cancelled).

16. (Withdrawn) The method of claim 14, wherein the reference range of dopamine amino acid precursor of catecholamine neurotransmitter is approximately 100-250 micrograms of neurotransmitter per gram of creatinine.

17. (Withdrawn) The method of claim 14, wherein the reference range of norepinephrine amino acid precursor of catecholamine neurotransmitter is approximately 25-75 micrograms of neurotransmitter per gram of creatinine.

18. (Withdrawn) The method of claim 14, wherein the reference range of epinephrine amino acid precursor of catecholamine neurotransmitter is approximately 5-13 micrograms of neurotransmitter per gram of creatinine.

19-20. (Cancelled).

21. (Withdrawn) The method of claim 19, wherein the optimal range of dopamine amino acid

precursor of catecholamine neurotransmitter is approximately 125-175 micrograms of neurotransmitter per gram of creatinine.

22-27. (Cancelled).

28. (Withdrawn) The method of claim 26, wherein the therapeutic range for concentrations of serotonin neurotransmitter is approximately 250-1,200 micrograms of neurotransmitter per gram of creatinine, for treatment related to panic disorder and obsessive compulsive disorder.

29. (Withdrawn) The method of claim 26, wherein the therapeutic range of dopamine amino acid precursor of catecholamine neurotransmitter is approximately 200-500 micrograms of neurotransmitter per gram of creatinine.

30. (Withdrawn) The method of claim 26, wherein the therapeutic range of dopamine amino acid precursor of catecholamine neurotransmitter is approximately <20,000 micrograms of neurotransmitter per gram of creatinine for treatment of Parkinsonism.

31. (Withdrawn) The method of claim 26, wherein the therapeutic range of norepinephrine amino acid precursor of catecholamine neurotransmitter is approximately 35-70 micrograms of neurotransmitter per gram of creatinine.

32. (Withdrawn) The method of claim 26, wherein the therapeutic range of epinephrine

amino acid precursor of catecholamine neurotransmitter is approximately 8-13 micrograms of neurotransmitter per gram of creatinine.

33-45. (Cancelled).

46. (Withdrawn) The method of claim 44, wherein the therapeutic range for concentrations of serotonin neurotransmitter is approximately 250-1,200 micrograms of neurotransmitter per gram of creatinine, for treatment related to panic disorder and obsessive compulsive disorder.

47. (Withdrawn) The method of claim 44, wherein the therapeutic range of dopamine amino acid precursor of catecholamine neurotransmitter is approximately 200-500 micrograms of neurotransmitter per gram of creatinine.

48. (Withdrawn) The method of claim 44, wherein the therapeutic range of dopamine amino acid precursor of catecholamine neurotransmitter is approximately <20,000 micrograms of neurotransmitter per gram of creatinine for treatment of Parkinsonism.

49. (Withdrawn) The method of claim 44, wherein the therapeutic range of norepinephrine amino acid precursor of catecholamine neurotransmitter is approximately 35-70 micrograms of neurotransmitter per gram of creatinine.

50. (Withdrawn) The method of claim 44, wherein the therapeutic range of epinephrine

amino acid precursor of catecholamine neurotransmitter is approximately 8-13 micrograms of neurotransmitter per gram of creatinine.

51-53. (Cancelled).

Please add new claims 54-62 as follows:

54. (New) A method for optimizing the neurotransmitter levels of the serotonin and catecholamine systems in a subject comprising:

a) administering a first therapeutic amount of amino acid neurotransmitter precursors to the subject;

b) assaying a bodily fluid of the patient to determine the neurotransmitter levels of the subject;

c) administering a second therapeutic amount of amino acid neurotransmitter precursors to the patient based on the assayed neurotransmitter levels of the subject; and

d) repeating steps b and c until the neurotransmitter levels of the patient are in a desired range for the patient.

55. (New) The method of claim 54 including an initial step of assaying the neurotransmitter levels in the subject prior to administering a first therapeutic amount of amino acid neurotransmitter precursors to the subject.

56. (New) The method of claim 54 wherein neurotransmitter levels for the subject are in a desired range when a direct relationship is reached between the amount of amino acid precursors administered to the subject and the corresponding neurotransmitter levels of the subject.

57. (New) The method of claim 54 wherein the neurotransmitter precursors are selected from the group consisting of L-Dopa, tyrosine, N-acetyl-1-tyrosine, phenylalanine, tryptophan and 5-HTP.

58. (New) The method of claim 54 wherein the neurotransmitter precursors comprise L-Dopa and 5-HTP.

59. (New) A method for optimizing the neurotransmitter levels of the serotonin and catecholamine systems in a subject comprising:

a) assaying the neurotransmitter levels in the subject;

b) administering a first therapeutic amount of amino acid neurotransmitter precursors to the subject;

c) assaying a bodily fluid of the patient to determine the neurotransmitter levels of the subject;

d) administering a second therapeutic amount of amino acid neurotransmitter precursors to the patient based on the assayed neurotransmitter levels of the subject; and

e) repeating steps c and d until the neurotransmitter levels of the patient are in a desired range for the patient.

60. (New) The method of claim 59 wherein neurotransmitter levels for the subject are in a desired range when a direct relationship is reached between the amount of amino acid precursors administered to the subject and the corresponding neurotransmitter levels of the subject.

61. (New) The method of claim 59 wherein the neurotransmitter precursors are selected from the group consisting of L-Dopa, tyrosine, N-acetyl-1-tyrosine, phenylalanine, tryptophan and 5-HTP.

62. (New) The method of claim 59 wherein the neurotransmitter precursors comprise L-Dopa and 5-HTP.